

CITY OF DUNEDIN  
FIREFIGHTERS' RETIREMENT SYSTEM  
ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2021  
CONTRIBUTIONS APPLICABLE TO THE  
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2023  
GASB 67/68 DISCLOSURE INFORMATION  
AS OF SEPTEMBER 30, 2021



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS

March 29, 2022

Board of Trustees  
City of Dunedin  
Firefighters' Pension Board

Re: City of Dunedin Firefighters' Retirement System

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Dunedin Firefighters' Retirement System. Included are the related results for GASB Statements No. 67 and No. 68. The funding valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year. The calculation of the liability for GASB results was performed for the purpose of satisfying the requirements of GASB Statements No. 67 and No. 68. Use of the results for other purposes may not be applicable and may produce significantly different results.

The valuations have been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflect laws and regulations issued to date pursuant to the provisions of Chapters 112 and 175, Florida Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in the valuations, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience.

The funding percentages and unfunded accrued liability as measured based on the actuarial value of assets will differ from similar measures based on the market value of assets. These measures, as provided, are appropriate for determining the adequacy of future contributions, but may not be appropriate for the purpose of settling a portion or all of its liabilities. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of the valuations, we did not perform an analysis of the potential range of such future measurements.

In conducting the valuations, we have relied on personnel, plan design, and asset information supplied by the City of Dunedin, financial reports prepared by the custodian bank, and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

Additionally, we used third-party software to model (calculate) the underlying liabilities and costs. These results are reviewed in the aggregate and for individual sample lives. The output from the software is either used directly or input into internally developed models that apply the funding and accounting rules to generate the results. All internally developed models are reviewed as part of the valuation process. As a result of this review, we believe that the models have produced reasonable results. We do not believe there are any material inconsistencies among assumptions or unreasonable output produced due to the aggregation of assumptions.

The total pension liability, net pension liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of October 1, 2020. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2021 using generally accepted actuarial principles. It is our opinion that the assumptions used for this purpose are internally consistent, reasonable, and comply with the requirements under GASB No. 67 and No. 68.


The undersigned are familiar with the immediate and long-term aspects of pension valuations, and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.


To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Dunedin, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Firefighters' Retirement System. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact us at 239-433-5500.

Respectfully submitted,

Foster & Foster, Inc.

By:   
Patrick T. Donlan, EA, ASA, MAAA  
Enrolled Actuary #20-6595

By:   
Kevin H. Peng, ASA, EA, MAAA  
Enrolled Actuary #20-7783

PTD/lke

Enclosures

## TABLE OF CONTENTS

Section	Title	Page
I	Introduction	
	a. Summary of Report	6
	b. Changes Since Prior Valuation	8
	c. Comparative Summary of Principal Valuation Results	9
II	Valuation Information	
	a. Reconciliation of Unfunded Actuarial Accrued Liabilities	15
	b. Detailed Actuarial (Gain)/Loss Analysis	16
	c. History of Funding Progress	17
	d. Actuarial Assumptions and Methods	18
	e. Glossary	21
	f. Discussion of Risk	23
	g. Partial History of Premium Tax Refunds	26
III	Trust Fund	27
IV	Member Statistics	
	a. Statistical Data	35
	b. Age and Service Distribution	36
	c. Valuation Participant Reconciliation	37
V	Summary of Current Plan	38
VI	Governmental Accounting Standards Board Statements No. 67 and No. 68 Disclosure Information	43

SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Dunedin Firefighters' Retirement System, performed as of October 1, 2021, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the plan/fiscal year ending September 30, 2023.

The contribution requirements, compared with those set forth in the October 1, 2020 actuarial valuation report, are as follows:

Valuation Date Applicable to Fiscal Year Ending	10/1/2021 <u>9/30/2023</u>	10/1/2020 <u>9/30/2022</u>
City And State Required Contribution	869,586	812,733
State Contribution (Est.) <sup>1</sup>	301,157	301,157
City Required Contribution <sup>2</sup>	\$568,429	\$511,576

<sup>1</sup> The City may use up to \$283,050.40 plus 25% of any amounts received above \$283,050.40 in State Contributions for determining its minimum funding requirements, based on the Mutual Consent Agreement. The amount shown represents what this will be if future State Monies equal the amount received in calendar 2021.

<sup>2</sup> Please note that a shortfall contribution of \$9,602.84 is due in addition to the above stated requirements for the fiscal year ending September 30, 2022.

As you can see, the Minimum Required Contribution shows an increase when compared to the results determined in the October 1, 2020 actuarial valuation report. The increase is attributable to assumptions and methods changes as a result of the experience study dated August 16, 2021. The increase was offset in part by favorable actuarial experience as described below.

Plan experience was favorable overall on the basis of the plan's actuarial assumptions. The primary source of actuarial gain was an investment return of 9.89% (Actuarial Asset Basis) which exceeded the 7.50% assumption. This gain was offset in part by a loss associated with a new Disability Retiree.

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

Ordinance No. 21-35 was adopted October 21, 2021 and provided for recent changes to the Internal Revenue Code, and language revisions for Pre-Retirement Death and Share Plan Benefits. The passage of this ordinance did not have any impact on the current funding requirements to the plan as outlined in our letter dated August 11, 2021.

### Actuarial Assumption/Method Changes

As approved by the Board at their August 19, 2021 meeting, the following changes were made to the assumptions and methods as a result of the experience study dated August 16, 2021.

- 1) Investment return assumption was reduced from 7.50% to 7.25%, net of investment related expenses.
- 2) Amortization Method was changed to amortize all future amortization bases over 15 years.
- 3) Reduced assumed salary increases for all periods of credited service less than 13 years of service.
- 4) Increased the assumed rates of termination for members in the first 5 years, 8-9 years and 10-14 years of employment and decreased the assumed rates for service between 6 to 7 years and 15 or more years.



COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Asmp/Mthd <u>10/1/2021</u>	Old Asmp/Mthd <u>10/1/2021</u>	<u>10/1/2020</u>
<b>A. Participant Data</b>			
Actives	45	45	44
Service Retirees	37	37	36
DROP Retirees	5	5	6
Beneficiaries	7	7	6
Disability Retirees	6	6	5
Terminated Vested	<u>6</u>	<u>6</u>	<u>5</u>
<b>Total</b>	<b>106</b>	<b>106</b>	<b>102</b>
Total Annual Payroll	\$3,407,286	\$3,439,554	\$3,285,101
Payroll Under Assumed Ret. Age	3,294,487	3,326,754	3,285,101
Annual Rate of Payments to:			
Service Retirees	1,169,562	1,169,562	1,072,987
DROP Retirees	269,061	269,061	309,240
Beneficiaries	155,362	155,362	139,854
Disability Retirees	154,715	154,715	126,774
Terminated Vested	91,037	91,037	47,814
<b>B. Assets</b>			
Actuarial Value (AVA) <sup>1</sup>	34,403,451	34,403,451	32,152,320
Market Value (MVA) <sup>1</sup>	37,311,409	37,311,409	32,273,617
<b>C. Liabilities</b>			
Present Value of Benefits			
Actives			
Retirement Benefits	18,914,132	19,129,524	18,463,343
Disability Benefits	932,362	985,487	986,225
Death Benefits	192,606	205,814	199,311
Vested Benefits	155,674	149,454	142,109
Refund of Contributions	43,822	37,829	28,609
Service Retirees	12,494,167	12,233,013	11,016,180
DROP Retirees <sup>1</sup>	4,004,883	3,921,116	4,419,995
Beneficiaries	1,647,620	1,613,807	1,463,062
Disability Retirees	1,415,341	1,387,334	1,062,877
Terminated Vested	1,015,755	986,529	481,540
Share Plan Balances <sup>1</sup>	<u>273,180</u>	<u>273,180</u>	<u>205,149</u>
<b>Total</b>	<b>41,089,542</b>	<b>40,923,087</b>	<b>38,468,400</b>

C. Liabilities - (Continued)	New Asmp/Mthd <u>10/1/2021</u>	Old Asmp/Mthd <u>10/1/2021</u>	<u>10/1/2020</u>
Present Value of Future Salaries	22,994,141	25,786,101	24,037,032
Present Value of Future Member Contributions	1,264,678	1,418,236	1,322,037
Normal Cost (Retirement)	624,993	695,182	690,073
Normal Cost (Disability)	81,512	86,576	85,445
Normal Cost (Death)	20,777	21,737	21,521
Normal Cost (Vesting)	13,805	10,916	9,734
Normal Cost (Refunds)	8,056	5,821	5,577
Total Normal Cost	<u>749,143</u>	<u>820,232</u>	<u>812,350</u>
Present Value of Future Normal Costs	5,155,236	6,263,891	5,856,420
Accrued Liability (Retirement)	14,547,009	13,754,020	13,442,248
Accrued Liability (Disability)	404,517	367,602	397,470
Accrued Liability (Death)	52,321	44,328	46,140
Accrued Liability (Vesting)	76,988	72,461	73,057
Accrued Liability (Refunds)	2,525	5,806	4,262
Accrued Liability (Inactives) <sup>1</sup>	20,577,766	20,141,799	18,443,654
Share Plan Balances <sup>1</sup>	273,180	273,180	205,149
Total Actuarial Accrued Liability (EAN AL)	<u>35,934,306</u>	<u>34,659,196</u>	<u>32,611,980</u>
Unfunded Actuarial Accrued Liability (UAAL)	1,530,855	255,745	459,660
Funded Ratio (AVA / EAN AL)	95.7%	99.3%	98.6%

D. Actuarial Present Value of Accrued Benefits	New Asmp/Mthd <u>10/1/2021</u>	Old Asmp/Mthd <u>10/1/2021</u>	<u>10/1/2020</u>
Vested Accrued Benefits			
Inactives + Share Plan Balances <sup>1</sup>	20,850,946	20,414,979	18,648,803
Actives	9,442,351	9,092,734	8,666,458
Member Contributions	<u>1,938,554</u>	<u>1,938,554</u>	<u>1,969,166</u>
Total	32,231,851	31,446,267	29,284,427
Non-vested Accrued Benefits	<u>710,733</u>	<u>686,566</u>	<u>692,393</u>
Total Present Value			
Accrued Benefits (PVAB)	32,942,584	32,132,833	29,976,820
Funded Ratio (MVA / PVAB)	113.3%	116.1%	107.7%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption/Method Changes	809,751	0	
Plan Experience	0	1,866,270	
Benefits Paid	0	(1,887,729)	
Interest	0	2,177,472	
Other	<u>0</u>	<u>0</u>	
Total	809,751	2,156,013	

	New Asmp/Mthd	Old Asmp/Mthd	
Valuation Date	10/1/2021	10/1/2021	10/1/2020
Applicable to Fiscal Year Ending	<u>9/30/2023</u>	<u>9/30/2023</u>	<u>9/30/2022</u>
E. Pension Cost			
Normal Cost <sup>2</sup>	\$812,786	\$899,412	\$888,746
Administrative Expenses <sup>2</sup>	91,078	92,050	81,876
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 29 years (as of 10/1/2021) <sup>2</sup>	162,312	19,154	39,783
Minimum Required Contribution	1,066,176	1,010,616	1,010,405
Expected Member Contributions <sup>2</sup>	196,590	200,634	197,672
Expected City and State Contribution	869,586	809,982	812,733
F. Past Contributions			
Plan Years Ending:	<u>9/30/2021</u>		
City and State Requirement	856,234		
Actual Contributions Made:			
City	555,077		
State	<u>301,157</u>		
Total	856,234		
G. Net Actuarial (Gain)/Loss	(116,594)		

<sup>1</sup> The asset values and liabilities include accumulated DROP and Share Plan Balances as of 9/30/2021 and 9/30/2020.

<sup>2</sup> Contributions developed as of 10/1/2021 displayed above have been adjusted to account for assumed salary increase and interest components.

H. Schedule Illustrating the Amortization of the Total Unfunded Actuarial Accrued Liability as of:

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2021	1,530,855
2022	1,481,393
2023	1,428,344
2030	932,200
2037	251,602
2043	158,070
2050	0

I. (i) 5 Year Comparison of Actual and Assumed Salary Increases

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2021	5.79%	5.31%
Year Ended 9/30/2020	4.97%	5.16%
Year Ended 9/30/2019	5.07%	5.44%
Year Ended 9/30/2018	4.00%	5.23%
Year Ended 9/30/2017	4.09%	5.93%

(ii) 5 Year Comparison of Investment Return on Market Value and Actuarial Value

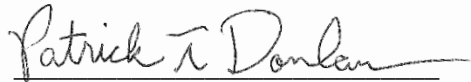
	<u>Market Value</u>	<u>Actuarial Value</u>	<u>Assumed</u>
Year Ended 9/30/2021	18.72%	9.89%	7.50%
Year Ended 9/30/2020	10.50%	7.36%	7.50%
Year Ended 9/30/2019	2.26%	5.47%	7.50%
Year Ended 9/30/2018	10.90%	6.29%	7.50%
Year Ended 9/30/2017	7.55%	6.33%	7.50%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2021	\$3,294,487
	10/1/2011	3,221,054
(b) Total Increase		2.28%
(c) Number of Years		10.00
(d) Average Annual Rate		0.23%

## STATEMENT BY ENROLLED ACTUARY

This actuarial valuation was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.



Patrick T. Donlan, EA, ASA, MAAA  
Enrolled Actuary #20-6595

Please let us know when the report is approved by the Board and unless otherwise directed we will provide copies of the report to the following offices to comply with Chapter 112, Florida Statutes:

Mr. Keith Brinkman  
Bureau of Local  
Retirement Systems  
Post Office Box 9000  
Tallahassee, FL 32315-9000

Mr. Steve Bardin  
Municipal Police and Fire  
Pension Trust Funds  
Division of Retirement  
Post Office Box 3010  
Tallahassee, FL 32315-3010

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

(1) Unfunded Actuarial Accrued Liability as of October 1, 2020	\$459,660
(2) Sponsor Normal Cost developed as of October 1, 2020	631,669
(3) Expected administrative expenses for the year ended September 30, 2021	74,838
(4) Expected interest on (1), (2) and (3)	84,656
(5) Sponsor contributions to the System during the year ended September 30, 2021	856,234
(6) Expected interest on (5)	22,250
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2021 (1)+(2)+(3)+(4)-(5)-(6)	372,339
(8) Change to UAAL due to Assumption/Method Change	1,275,110
(9) Change to UAAL due to Actuarial (Gain)/Loss	(116,594)
(10) Unfunded Actuarial Accrued Liability as of October 1, 2021	1,530,855

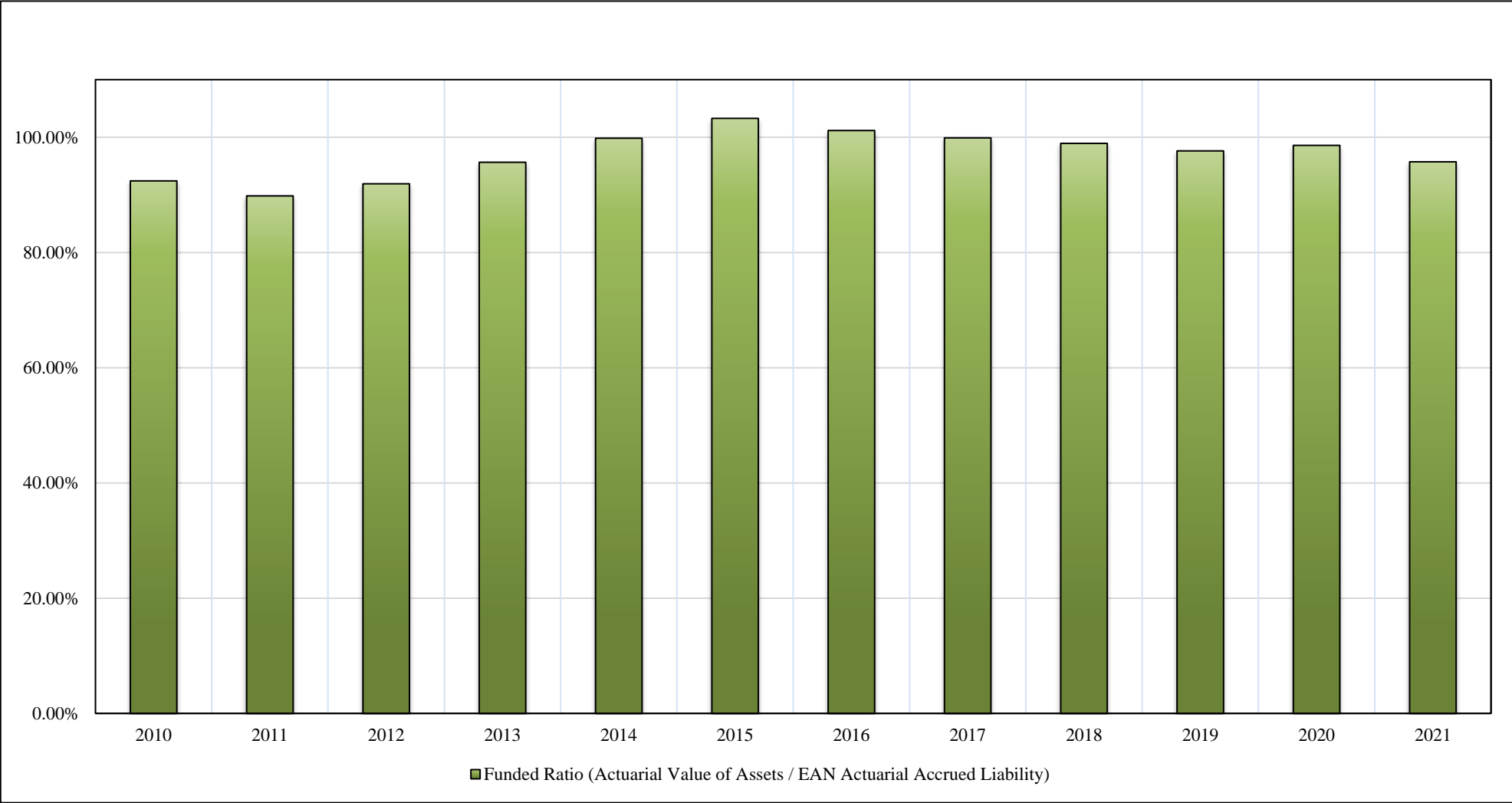
Type of <u>Base</u>	Date <u>Established</u>	Years <u>Remaining</u>	10/1/2021 <u>Amount</u>	Amortization <u>Amount</u>
UAAL Fresh Start	10/1/2015	24	(760,741)	(63,208)
Benefit Change	10/1/2015	24	481,703	40,023
Assumption Changes	10/1/2016	25	187,284	15,324
Actuarial Gain	10/1/2016	25	(175,982)	(14,399)
Actuarial Loss	10/1/2017	26	297,116	23,969
Reconciliation	10/1/2018	27	(30,544)	(2,432)
Actuarial Loss	10/1/2018	27	136,771	10,891
Benefit Change	10/1/2018	27	170,262	13,558
Benefit Change	10/1/2018	27	(13,323)	(1,061)
Actuarial Loss	10/1/2019	28	287,642	22,633
Actuarial Gain	10/1/2020	29	(74,489)	(5,797)
Assump Change	10/1/2020	29	(133,360)	(10,378)
Actuarial Gain	10/1/2021	15	(116,594)	(12,125)
Asmp/Mthd Change	10/1/2021	15	<u>1,275,110</u>	<u>132,605</u>
			1,530,855	149,603

## DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2020	\$459,660
(2) Expected UAAL as of October 1, 2021	372,339
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	(759,411)
Salary Increases	33,605
Active Decrements	260,473
Inactive Mortality	(77,689)
New Entrances	14,250
In Line of Duty Disability	343,070
Other	<u>69,108</u>
Increase in UAAL due to (Gain)/Loss	(116,594)
Assumption/Method Changes	1,275,110
(4) Actual UAAL as of October 1, 2021	\$1,530,855



# HISTORY OF FUNDING PROGRESS



## ACTUARIAL ASSUMPTIONS AND METHODS

### Mortality Rate

#### *Healthy Active Lives:*

**Female:** PubS.H-2010 (Below Median) for Employees, set forward one year.

**Male:** PubS.H-2010 (Below Median) for Employees, set forward one year.

#### *Healthy Retiree Lives:*

**Female:** PubS.H-2010 for Healthy Retirees, set forward one year.

**Male:** PubS.H-2010 for Healthy Retirees, set forward one year.

#### *Beneficiary Lives:*

**Female:** PubG.H-2010 for Healthy Retirees.

**Male:** PubG.H-2010 for Healthy Retirees, set back one year.

#### *Disabled Lives:*

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

All rates are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.

The previously described mortality assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman's July 1, 2021 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

90% of active deaths are assumed to be service-incurred.

### Interest Rate

7.25% (prior year 7.50%) per year compounded annually, net of investment related expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.

### Salary Increases

See table later in this section. This assumption was adopted by the Board as the result of an Experience Study dated August 16, 2021.

<u>Payroll Growth</u>	0.00% for purposes of amortizing the Unfunded Actuarial Accrued Liability. This assumption cannot exceed the ten-year average payroll growth, in compliance with Part VII of Chapter 112, Florida Statutes.
<u>Administrative Expenses</u>	\$83,946 annually, based on the average of actual expenses incurred in the prior two fiscal years.
<u>Amortization Method</u>	New UAAL amortization bases are amortized over 15 (prior year 30) years.
<u>Termination Rates</u>	See table later in this section. This assumption was adopted by the Board as the result of an Experience Study dated August 16, 2021.
<u>Disability Rates</u>	See sample rates in table later in this section. We feel these rates are consistent with those utilized for plans containing other Florida municipal firefighters. This assumption was confirmed as part of an Experience Study dated August 16, 2021. It is assumed that 90% of disablements are service related.
<u>Retirement Rates</u>	See table later in this section. Additionally, the assumed rate of retirement is 2.0% for each year of eligibility for early retirement. This assumption was adopted by the Board as the result of an Experience Study dated October 3, 2016 and confirmed as part of an Experience Study dated August 16, 2021.
<u>Funding Method</u>	Entry Age Normal Cost Method
<u>Funding Projection</u>	The following loads are applied for determination of the Sponsor dollar funding requirement for the following year: <ul style="list-style-type: none"> <li>• Interest – A half year, based on the current 7.25% assumption</li> <li>• Salary – A full year, based on the current 4.70% assumption.</li> </ul>
<u>Actuarial Asset Method</u>	All assets are valued at market value with an adjustment made to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period.

Assumption Tables

<u>% Terminating During the Year</u>			<u>% Becoming Disabled During the Year</u>	
<u>Service</u>	<u>Current Rate</u>	<u>Prior Rate</u>	<u>Age</u>	<u>Rate</u>
<6	8.00%	5.00%	25	0.15%
6-7	1.00%	4.00%	30	0.18%
8-9	1.00%	0.00%	35	0.23%
10-14	2.00%	0.50%	40	0.30%
15+	0.00%	0.50%	45	0.51%
			50	1.00%
			55	1.55%
			60+	2.09%

<u>Salary Scale</u>			<u>Normal Retirement Probability</u>	
<u>Service</u>	<u>Current Rate</u>	<u>Prior Rate</u>	<u>Number of Years after First Eligibility for Normal Retirement</u>	<u>Rate</u>
0	8.00%	11.00%	0	20%
1	8.00%	10.00%	1-4	10%
2	4.50%	9.00%	5+	100%
3	4.50%	8.00%		
4	4.50%	7.00%		
5-9	4.50%	6.50%		
10	4.50%	6.00%		
11	4.50%	5.50%		
12	4.50%	5.00%		
13	4.50%	4.50%		
14+	4.00%	4.00%		

## GLOSSARY

Actuarial Value of Assets is the asset value used in the valuation to determine contribution requirements. It represents the plan's Market Value of Assets (see below), with adjustments according to the plan's Actuarial Asset Method. These adjustments produce a "smoothed" value that is likely to be less volatile from year to year than the Market Value of Assets.

Entry Age Normal Cost Method - Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation.

(a) The normal cost accrual rate equals:

(i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by

(ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.

(b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.

(c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.

(d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

Market Value of Assets is the fair market value of plan assets as of the valuation date. This amount may be adjusted to produce an Actuarial Value of Assets for plan funding purposes.

Normal (Current Year's) Cost is the current year's cost for benefits yet to be funded. Under the Entry Age Normal cost method, it is determined for each participant as the present value of future benefits, determined as of the Member's entry age, amortized as a level percentage of compensation over the anticipated number of years of participation, determined as of the entry age.

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current plan participants.

Total Annual Payroll is the projected annual rate of pay for the fiscal year beginning on the valuation date of all covered Members.

Total Required Contribution is equal to the Normal Cost plus an amount sufficient to amortize the Unfunded Accrued Liability over no more than 30 years. The required amount is adjusted for interest according to the timing of contributions during the year.

Unfunded Actuarial Accrued Liability (UAAL) is the difference between the actuarial accrued liability (described above) and the Actuarial Value of Assets. Under the Entry Age Normal Actuarial Cost Method, an actuarial gain or loss, based on actual versus expected UAAL, is determined in conjunction with each valuation of the plan.

## DISCUSSION OF RISK

ASOP No. 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions, states that the actuary should identify risks that, in the actuary's professional judgment, may reasonably be anticipated to significantly affect the plan's future financial condition.

Throughout this report, actuarial results are determined using various actuarial assumptions. These results are based on the premise that all future plan experience will align with the plan's actuarial assumptions; however, there is no guarantee that actual plan experience will align with the plan's assumptions. It is possible that actual plan experience will differ from anticipated experience in an unfavorable manner that will negatively impact the plan's funded position.

Below are examples of ways in which plan experience can deviate from assumptions and the potential impact of that deviation. Typically, this results in an actuarial gain or loss representing the current-year financial impact on the plan's unfunded liability of the experience differing from assumptions; this gain or loss is amortized over a period of time determined by the plan's amortization method. When assumptions are selected that adequately reflect plan experience, gains and losses typically offset one another in the long term, resulting in a relatively low impact on the plan's contribution requirements associated with plan experience. When assumptions are too optimistic, losses can accumulate over time and the plan's amortization payment could potentially grow to an unmanageable level.

- Investment Return: When the rate of return on the Actuarial Value of Assets falls short of the assumption, this produces a loss representing assumed investment earnings that were not realized. Further, it is unlikely that the plan will experience a scenario that matches the assumed return in each year as capital markets can be volatile from year to year. Therefore, contribution amounts can vary in the future.
- Salary Increases: When a plan participant experiences a salary increase that was greater than assumed, this produces a loss representing the cost of an increase in anticipated plan benefits for the participant as compared to the previous year. The total gain or loss associated with salary increases for the plan is the sum of salary gains and losses for all active participants.
- Demographic Assumptions: Actuarial results take into account various potential events that could happen to a plan participant, such as retirement, termination, disability, and death. Each of these potential events is assigned a liability based on the likelihood of the event and the financial consequence of the event for the plan. Accordingly, actuarial liabilities reflect a blend of financial consequences associated with various possible outcomes (such as retirement at one of various possible ages). Once the outcome is known (e.g. the participant retires) the liability is adjusted to reflect the known outcome. This adjustment produces a gain or loss depending on whether the outcome was more or less favorable than other outcomes that could have occurred.

### Impact of Plan Maturity on Risk

For newer pension plans, most of the participants and associated liabilities are related to active members who have not yet reached retirement age. As pension plans continue in operation and active members reach retirement ages, liabilities begin to shift from being primarily related to active members to being shared amongst active and retired members. Plan maturity is a measure of the extent to which this shift has occurred. It is important to understand that plan maturity can have an impact on risk tolerance and the overall risk characteristics of the plan. For example, closed plans with a large amount of retired liability do not have as long of a time horizon to recover from losses (such as losses on investments due to lower than expected investment returns) as plans where the majority of the liability is attributable to active members. For this reason, less tolerance for investment risk may be warranted for highly mature closed plans with a substantial inactive liability. Similarly, mature closed plans paying substantial retirement benefits resulting in a small positive or net negative cash flow can be more sensitive to near term investment volatility, particularly if the size of the fund is shrinking, which can result in less assets being available for investment in the market.

To assist with determining the maturity of the plan, we have provided some relevant metrics in the table following titled “Plan Maturity Measures and Other Risk Metrics”. Highlights of this information are discussed below:

- The Support Ratio, determined as the ratio of active to inactive members, has decreased from 123.8% on October 1, 2011 to 77.6% on October 1, 2021, indicating that the plan has been maturing during the period.
- The Accrued Liability Ratio, determined as the ratio of the Inactive Accrued Liability, which is the liability associated with members who are no longer employed but are due a benefit from the plan, to the Total Accrued Liability, is 57.3%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors may result in larger increases in contribution requirements than would be needed for a less mature plan. Please note Chapter 112, Florida Statutes, requires that the plan sponsor contributes the minimum required contribution; thus, there is minimal solvency risk to the plan.
- The Funded Ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has increased from 89.8% on October 1, 2011 to 95.7% on October 1, 2021.
- The Net Cash Flow Ratio, determined as the ratio of the Net Cash Flow (contributions minus benefit payments and administrative expenses) to the Market Value of Assets, decreased from -0.2% on October 1, 2011 to -2.4% on October 1, 2021. The current Net Cash Flow Ratio of -2.4% indicates that contributions are not currently covering the plan's benefit payments and administrative expenses.

It is important to note that the actuary has identified the risks in this section as the most significant risks based on the characteristics of the plan and the nature of the project, however, it is not an exhaustive list of potential risks that could be considered. Additional advanced modeling, as well as the identification of additional risks, can be provided at the request of the audience addressed on page 2 of this report.



PLAN MATURITY MEASURES AND OTHER RISK METRICS

	<u>10/1/2011</u>	<u>10/1/2016</u>	<u>10/1/2020</u>	<u>10/1/2021</u>
<u>Support Ratio</u>				
Total Actives	52	49	44	45
Total Inactives <sup>1</sup>	42	46	55	58
Actives / Inactives <sup>1</sup>	123.8%	106.5%	80.0%	77.6%
<u>Asset Volatility Ratio</u>				
Market Value of Assets (MVA)	16,948,691	25,285,901	32,273,617	37,311,409
Total Annual Payroll	3,287,502	3,381,361	3,285,101	3,407,286
MVA / Total Annual Payroll	515.5%	747.8%	982.4%	1,095.0%
<u>Accrued Liability (AL) Ratio</u>				
Inactive Accrued Liability	10,551,232	12,941,126	18,443,654	20,577,766
Total Accrued Liability (EAN)	20,447,755	26,153,165	32,611,980	35,934,306
Inactive AL / Total AL	51.6%	49.5%	56.6%	57.3%
<u>Funded Ratio</u>				
Actuarial Value of Assets (AVA)	18,366,699	26,458,831	32,152,320	34,403,451
Total Accrued Liability (EAN)	20,447,755	26,153,165	32,611,980	35,934,306
AVA / Total Accrued Liability (EAN)	89.8%	101.2%	98.6%	95.7%
<u>Net Cash Flow Ratio</u>				
Net Cash Flow <sup>2</sup>	(37,274)	(132,638)	(554,260)	(886,461)
Market Value of Assets (MVA)	16,948,691	25,285,901	32,273,617	37,311,409
Ratio	-0.2%	-0.5%	-1.7%	-2.4%

<sup>1</sup> Excludes terminated participants awaiting a refund of member contributions.

<sup>2</sup> Determined as total contributions minus benefit payments and administrative expenses.

PARTIAL HISTORY OF PREMIUM TAX REFUNDS

<u>Received During Fiscal Year</u>	<u>Amount</u>	<u>Increase from Previous Year</u>
1998	98,180.40	_____ %
1999	96,222.13	-2.0%
2000	99,153.84	3.0%
2001	105,318.48	6.2%
2002	115,277.87	9.5%
2003	140,390.49	21.8%
2004	185,679.70	32.3%
2005	179,624.52	-3.3%
2006	203,474.98	13.3%
2007	291,578.32	43.3%
2008	232,457.90	-20.3%
2009	303,971.21	30.8%
2010	291,660.79	-4.0%
2011	289,418.10	-0.8%
2012	309,954.21	7.1%
2013	314,996.10	1.6%
2014	322,029.56	2.2%
2015	303,897.66	-5.6%
2016	286,293.33	-5.8%
2017	298,121.66	4.1%
2018	301,955.98	1.3%
2019	312,939.13	3.6%
2020	326,578.04	4.4%
2021	355,478.74	8.8%

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2021

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Short Term Investments	585,195.81	585,195.81
Prepaid Expenses	1,242.97	1,242.97
Total Cash and Equivalents	586,438.78	586,438.78
Receivables:		
Additional City Contributions	9,602.84	9,602.84
Investment Income	60,711.35	60,711.35
Total Receivable	70,314.19	70,314.19
Investments:		
U. S. Bonds and Bills	4,467,174.69	4,419,664.95
Federal Agency Guaranteed Securities	1,038,703.44	1,074,386.57
Corporate Bonds	2,351,317.12	2,425,554.95
Stocks	10,089,469.30	12,952,707.26
Mutual Funds:		
Equity	8,112,695.79	12,581,620.73
Pooled/Common/Commingled Funds:		
Real Estate	2,250,000.00	3,233,235.54
Total Investments	28,309,360.34	36,687,170.00
Total Assets	28,966,113.31	37,343,922.97
<u>LIABILITIES</u>		
Payables:		
Benefit Payments	34.00	34.00
Investment Expenses	28,174.36	28,174.36
Administrative Expenses	4,305.88	4,305.88
Total Liabilities	32,514.24	32,514.24
NET POSITION RESTRICTED FOR PENSIONS	28,933,599.07	37,311,408.73

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2021  
Market Value Basis

ADDITIONS

Contributions:

Member	182,933.32
City	555,076.52
State	355,478.74

Total Contributions 1,093,488.58

Investment Income:

Net Realized Gain (Loss)	2,215,340.79
Unrealized Gain (Loss)	3,276,583.22
Net Increase in Fair Value of Investments	5,491,924.01
Interest & Dividends	578,796.14
Less Investment Expense <sup>1</sup>	(146,466.87)

Net Investment Income 5,924,253.28

Total Additions 7,017,741.86

DEDUCTIONS

Distributions to Members:

Benefit Payments	1,449,516.76
Lump Sum DROP Distributions	416,526.05
Lump Sum Share Distributions	19,340.05
Refunds of Member Contributions	2,346.58

Total Distributions 1,887,729.44

Administrative Expense 92,220.60

Total Deductions 1,979,950.04

Net Increase in Net Position 5,037,791.82

NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year 32,273,616.91

End of the Year 37,311,408.73

<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

ACTUARIAL ASSET VALUATION  
September 30, 2021

Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a five year period. In the first year, 20% of the gain or loss is recognized. In the second year 40%, in the third year 60%, in the fourth year 80%, and in the fifth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Plan Year Ending	Gain/(Loss)	<u>Gain/Loss Not Yet Recognized</u>				
		Amounts Not Yet Recognized by Valuation Year				
		2021	2022	2023	2024	2025
09/30/2017	2,529	0	0	0	0	0
09/30/2018	891,470	178,294	0	0	0	0
09/30/2019	(1,538,640)	(615,456)	(307,728)	0	0	0
09/30/2020	859,235	515,541	343,694	171,847	0	0
09/30/2021	3,536,974	2,829,579	2,122,184	1,414,789	707,394	0
<b>Total</b>		<b>2,907,958</b>	<b>2,158,150</b>	<b>1,586,636</b>	<b>707,394</b>	<b>0</b>

Development of Investment Gain/Loss

Market Value of Assets, 09/30/2020	32,273,617
Contributions Less Benefit Payments & Admin Expenses	(886,461)
Expected Investment Earnings*	2,387,279
Actual Net Investment Earnings	5,924,253
2021 Actuarial Investment Gain/(Loss)	<u>3,536,974</u>

\*Expected Investment Earnings = 0.075 \* [32,273,617 + 0.5 \* (886,461)]

Development of Actuarial Value of Assets

(1) Market Value of Assets, 09/30/2021	37,311,409
(2) Gain/(Loss) Not Yet Recognized	2,907,958
(3) Actuarial Value of Assets, 09/30/2021, (1) - (2)	<u>34,403,451</u>

(A) 09/30/2020 Actuarial Assets: 32,152,320

(I) Net Investment Income:

1. Interest and Dividends	578,796
2. Realized Gain (Loss)	2,215,341
3. Unrealized Gain (Loss)	3,276,583
4. Change in Actuarial Value	(2,786,661)
5. Investment Expenses	(146,467)
<b>Total</b>	<u><b>3,137,592</b></u>

(B) 09/30/2021 Actuarial Assets: 34,403,451

Actuarial Assets Rate of Return = 2I/(A+B-I): 9.89%

Market Value of Assets Rate of Return: 18.72%

Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis) 759,411

10/01/2021 Limited Actuarial Assets: 34,403,451

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
 SEPTEMBER 30, 2021  
 Actuarial Asset Basis

REVENUES

Contributions:		
Member	182,933.32	
City	555,076.52	
State	355,478.74	
 Total Contributions		 1,093,488.58
Earnings from Investments:		
Interest & Dividends	578,796.14	
Net Realized Gain (Loss)	2,215,340.79	
Unrealized Gain (Loss)	3,276,583.22	
Change in Actuarial Value	(2,786,661.00)	
 Total Earnings and Investment Gains		 3,284,059.15

EXPENDITURES

Distributions to Members:		
Benefit Payments	1,449,516.76	
Lump Sum DROP Distributions	416,526.05	
Lump Sum Share Distributions	19,340.05	
Refunds of Member Contributions	2,346.58	
 Total Distributions		 1,887,729.44
Expenses:		
Investment related <sup>1</sup>	146,466.87	
Administrative	92,220.60	
 Total Expenses		 238,687.47
 Change in Net Assets for the Year		 2,251,130.82
 Net Assets Beginning of the Year		 32,152,319.91
 Net Assets End of the Year <sup>2</sup>		 34,403,450.73

<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

<sup>2</sup>Net Assets may be limited for actuarial consideration.

DEFERRED RETIREMENT OPTION PLAN ACTIVITY  
October 1, 2020 to September 30, 2021

Beginning of the Year Balance	626,471.60
Plus Additions	281,445.64
Investment Return Earned	95,278.03
Less Distributions	(416,526.05)
End of the Year Balance	586,669.22

SUPPLEMENTAL CHAPTER 175 SHARE PLAN ACTIVITY  
October 1, 2020 through September 30, 2021

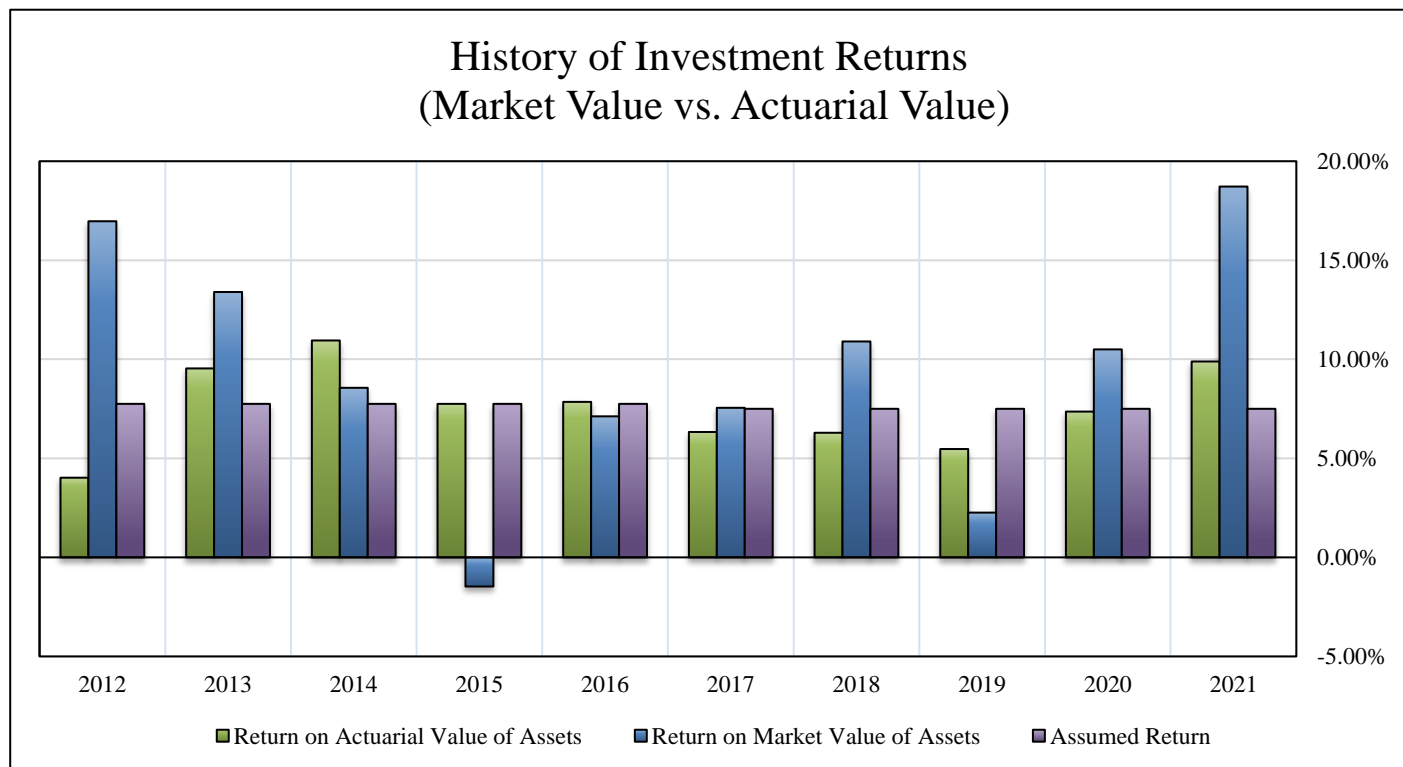
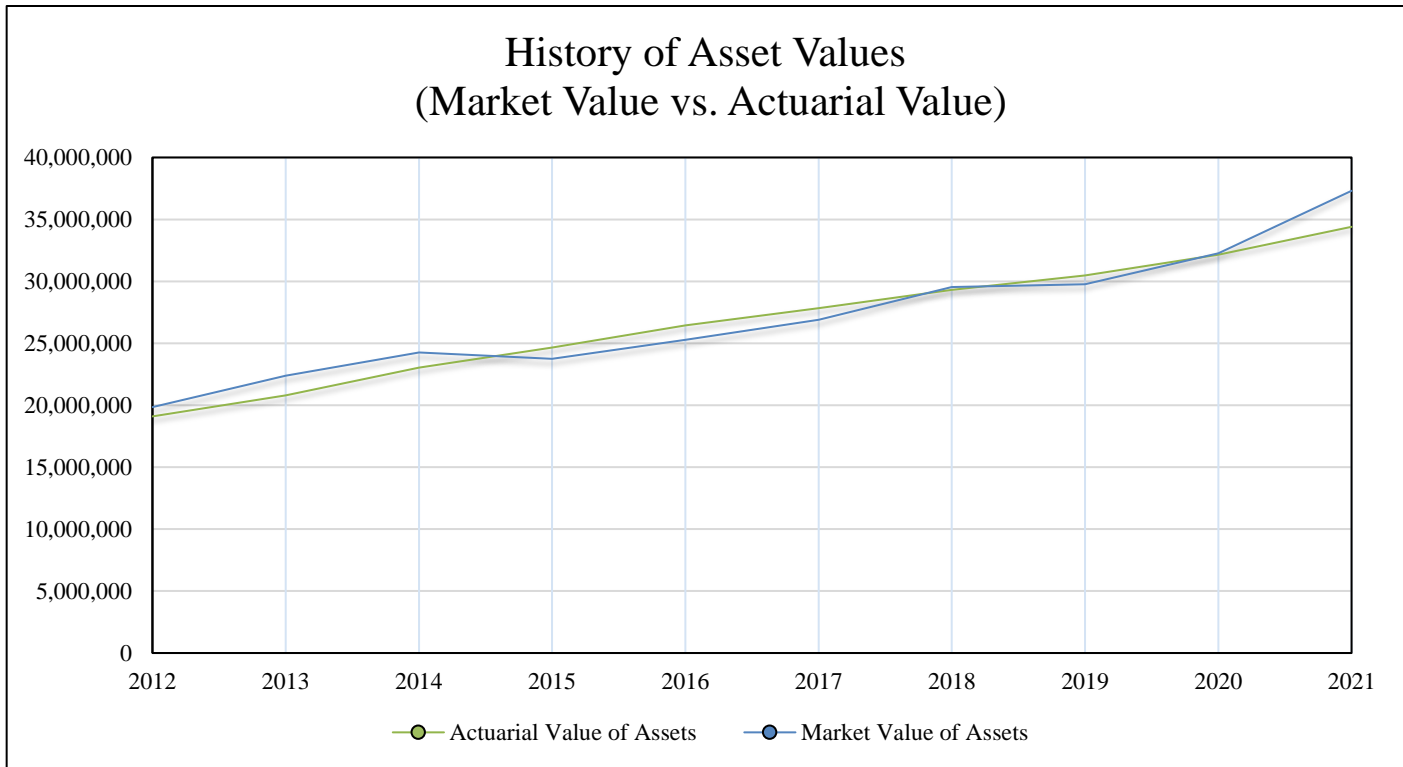
9/30/2020 Balance	205,149.19
Prior Year Adjustment	(1,460.37)
Plus Additions	54,321.26
Investment Return Earned	34,510.10
Administrative Fees	0.00
Less Distributions	(19,340.05)
9/30/2021 Balance	273,180.13



RECONCILIATION OF CITY'S SHORTFALL/(PREPAID) CONTRIBUTION  
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2021

(1) Required City and State Contributions	\$856,234.00
(2) Less Allowable State Contribution	<u>(301,157.48)</u>
(3) Required City Contribution for Fiscal 2021	555,076.52
(4) Plus 2020 Shortfall Contribution	20,237.32
(5) Less Actual City Contributions	<u>(565,711.00)</u>
(6) Equals City's Shortfall/(Prepaid) Contribution as of September 30, 2021	\$9,602.84

# HISTORY OF ASSET VALUES AND INVESTMENT RETURNS



STATISTICAL DATA

	<u>10/1/2018</u>	<u>10/1/2019</u>	<u>10/1/2020</u>	<u>10/1/2021</u>
<u>Actives</u>				
Number	50	47	44	45
Average Current Age	41.9	41.5	42.0	41.3
Average Age at Employment	29.4	29.0	29.0	28.9
Average Past Service	12.5	12.5	13.0	12.4
Average Annual Salary	\$70,345	\$72,460	\$74,661	\$75,717
<u>Service Retirees</u>				
Number	33	35	36	37
Average Current Age	68.3	68.5	68.4	67.7
Average Annual Benefit	\$26,386	\$28,565	\$29,805	\$31,610
<u>DROP Retirees</u>				
Number	3	5	6	5
Average Current Age	55.7	55.5	56.6	56.3
Average Annual Benefit	\$62,352	\$51,860	\$51,540	\$53,812
<u>Beneficiaries</u>				
Number	6	6	6	7
Average Current Age	62.5	65.0	65.1	65.5
Average Annual Benefit	\$22,961	\$23,315	\$23,309	\$22,195
<u>Disability Retirees</u>				
Number	6	5	5	6
Average Current Age	69.0	67.2	68.2	63.4
Average Annual Benefit	\$25,655	\$25,355	\$25,355	\$25,786
<u>Terminated Vested</u>				
Number	2	2	5	6
Average Current Age <sup>1</sup>	37.5	38.5	39.5	44.1
Average Annual Benefit <sup>1</sup>	\$23,907	\$23,907	\$23,907	\$30,346

<sup>1</sup> The Average Current Age and Average Annual Benefit exclude participants awaiting a refund of contributions.

## AGE AND SERVICE DISTRIBUTION

### PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19												0
20 - 24		1										1
25 - 29	1	1	1	2								5
30 - 34	2		1	1	1	1						6
35 - 39			1			1	5					7
40 - 44				1			1	6	1			9
45 - 49							1	4	2	1		8
50 - 54						1	1	2	2			6
55 - 59							1	2				3
60 - 64												0
65+												0
Total	3	2	3	4	1	3	9	14	5	1	0	45

## VALUATION PARTICIPANT RECONCILIATION

### 1. Active lives

a. Number in prior valuation 10/1/2020	44
b. Terminations	
i. Vested (partial or full) with deferred annuity	(1)
ii. Vested in refund of member contributions only	0
iii. Refund of member contributions or full lump sum distribution received	0
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	(1)
f. DROP	<u>(1)</u>
g. Continuing participants	41
h. New entrants	<u>4</u>
i. Total active life participants in valuation	45

### 2. Non-Active lives (including beneficiaries receiving benefits)

	Service Retirees, Vested Receiving <u>Benefits</u>	DROP <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested (Deferred Annuity)	Vested (Due Refund)	<u>Total</u>
a. Number prior valuation	36	6	6	5	2	3	58
Retired	3	(2)	0	0	0	0	1
DROP	0	1	0	0	0	0	1
Vested (Deferred Annuity)	0	0	0	0	1	0	1
Vested (Due Refund)	0	0	0	1	0	(1)	0
Hired/Terminated in Same Year	0	0	0	0	0	2	2
Death, With Survivor	(1)	0	1	0	0	0	0
Death, No Survivor	(1)	0	0	0	0	0	(1)
Disabled	0	0	0	0	0	0	0
Refund of Contributions	0	0	0	0	0	(1)	(1)
Rehires	0	0	0	0	0	0	0
Expired Annuities	0	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	0	0
b. Number current valuation	37	5	7	6	3	3	61

SUMMARY OF CURRENT PLAN  
(Through Ordinance 21-35)

<u>Eligibility</u>	All actively employed full-time firefighters participate in the plan as a condition of employment.
<u>Credited Service</u>	Service is measured as the total number of years and fractional parts of years of service as a firefighter with member contributions. No service is credited for any periods of employment for which the member received a refund of their contributions.
<u>Salary</u>	The fixed monthly compensation for services rendered to the City as a firefighter including holiday pay, plus all tax deferred, tax sheltered and tax exempt items of income otherwise includable as fixed monthly compensation.
<u>Final Average Compensation</u>	One twelfth of the average Compensation for the highest 3 years out of the last 10 years of Credited Service prior to termination or retirement.
<u>Member Contributions</u>	5.5% of Compensation.
<u>Employer Contributions</u>	Chapter 175 Premium Tax Refunds and any additional amount determined by the actuary needed to fund the plan properly according to State laws.
<u>Normal Retirement</u>	
Eligibility	A member may retire on the first day of the month coincident with or next following the earlier of: (1) age 52 and 25 years of Credited Service, or (2) age 55 and 10 years of Credited Service, or (3) 20 years of Credited Service regardless of age.
Benefit	3% of AFC multiplied by Credited Service up to 25 years plus 2% of AFC multiplied by Credited Service in excess of 37.5 years. Total benefit is limited to 100% of AFC. In addition, a supplemental benefit of \$16 per year of Credited Service up to a maximum of \$400 is payable monthly to members who meet the requirements for Normal Retirement and retire on or after October 1, 2018 or enter the DROP on or after October 1, 2014 and are still employed on October 1, 2018.
Form of Benefit	Ten Year Certain and Life thereafter; other options available.

Early Retirement

Date A member may retire on the first day of the month coincident with or next following age 45 and 10 years of Credited Service.

Benefit The Normal Retirement Benefit is actuarially reduced by 3.00% for each year to age 50 and 3.33% for each year from age 50 to age 45 by which the commencement of benefits precedes the member's Normal Retirement date had the member continued employment as a firefighter. For this purpose, the Normal Retirement date upon completion of 20 years of Credited Service is disregarded.

Form of Benefit Ten Year Certain and Life thereafter; other options available.

Delayed Retirement

Same as Normal Retirement taking into account compensation earned and service credited until the date of actual retirement.

Vested Termination

Eligibility A member has earned a non-forfeitable right to Plan benefits after the completion of 10 years of Credited Service.

Benefit The benefit is the member's accrued Normal Retirement Benefit as of the date of termination. The benefit is payable at the member's Normal Retirement age determined as if the member continued employment as a firefighter. Alternatively, members can elect a reduced Early Retirement Benefit anytime after age 45.

Members with less than 10 years of Credited Service will receive a refund of their own accumulated contributions.

Form of Benefit Ten Year Certain and Life thereafter; other options available.

Service Connected Disability

Eligibility Any member who becomes totally and permanently disabled and unable to render useful and efficient service as a firefighter as a result from an act occurring in the performance of service for the City is immediately eligible for a disability benefit.

Benefit	The greater of: (1) The accrued Normal Retirement Benefit taking into account compensation earned and service credited until the date of disability, or (2) 60% of average salary over the 5 highest years of Credited Service.
Duration	Payable until death or recovery from disability with 120 payments guaranteed.

Non-Service Connected Disability

Eligibility	Any member who has 10 years of Credited Service and becomes totally and permanently disabled and unable to render useful and efficient service as a firefighter is immediately eligible for a disability benefit.
Benefit	The greater of: (1) The accrued Normal Retirement Benefit taking into account compensation earned and service credited until the date of disability, or (2) 30% of average salary over the 5 highest years of Credited Service.
Duration	Payable until death or recovery from disability with 120 payments guaranteed.

Death Benefits

In the Line of Duty

Eligibility	Any member whose death is determined to be the result of a service incurred injury is eligible for survivor benefits regardless of Credited Service.
Benefit	50% of base rate of pay in effect on date of death is payable to the spouse. If there is no spouse, or upon death or remarriage of the spouse, 15% of the member's salary is payable to each unmarried child under age 18 (age 22 if a full-time student); 50% total maximum for all such children.
Duration	Spouse benefits payable until death or remarriage. Children's benefits are payable until death, marriage or the attainment of age 18 (age 22 if a full-time student).

Other Pre-Retirement

Eligibility	Any member who dies, and whose death is not attributable to active duty or service, while employed as a firefighter by the City is eligible for survivor benefits regardless of Credited Service.
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Benefit 25% of base rate of pay in effect on date of death is payable to the spouse. If there is no spouse, or upon death or remarriage of the spouse, 7.5% of the member's salary is payable to each unmarried child under age 18 (age 22 if a full-time student)

Duration Spouse benefits payable until death or remarriage. Children's benefits are payable until death, marriage or the attainment of age 18 (age 22 if a full-time student).

Post-Retirement Benefit determined by the form of benefit elected upon retirement.

### Deferred Retirement Option Plan

Eligibility A member may retire on the first day of the month coincident with or next following the earlier of: (1) age 52 and 25 years of Credited Service, or (2) age 55 and 10 years of Credited Service, or (3) 20 years of Credited Service regardless of age. Members who meet eligibility must submit a written election to participate in the DROP.

Benefit The member's Credited Service and FAC are frozen upon entry into the DROP. The monthly retirement benefit as described under Normal Retirement is calculated based upon the frozen Credited Service and FAC.

In addition, a supplemental benefit of \$13 per year of Credited Service up to a maximum of \$325 is payable monthly to members who meet the requirements for Normal Retirement and retire. DROP participants do not receive the supplement until actual termination of employment.

Maximum DROP Period The earlier of 5 years of participation in the DROP or when the member has completed 30 years of Credited Service.

Interest Credited The member's average daily balance of the DROP account is debited or credited with interest on a quarterly basis at a rate equal to the Trust Fund's net investment return for the quarter.

Form of Benefit: Lump Sum, or the member may elect that the DROP distribution be used to purchase an annuity.

Optional Forms

In lieu of electing the Normal Form of benefit, the optional forms of benefits available to all retirees are a Single Life Annuity of the 50%, 66 2/3%, 75% and 100% Joint and Survivor options. A Social Security option is also available for members retiring prior to the time they are eligible for Social Security retirement benefits.

Share Plan

75% of the Excess State Monies received each fiscal year (amounts above \$283,050.40) are allocated equally among Eligible Members.

Board of Trustees

Two Council appointees, two Members of the Plan elected by the membership, and a fifth Member elected by other 4 and appointed by Council as a ministerial duty.

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2021

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Short Term Investments	585,196
Prepaid Expenses	1,243
 Total Cash and Equivalents	 586,439
Receivables:	
Additional City Contributions	9,603
Investment Income	60,711
 Total Receivable	 70,314
Investments:	
U. S. Bonds and Bills	4,419,665
Federal Agency Guaranteed Securities	1,074,387
Corporate Bonds	2,425,555
Stocks	12,952,707
Mutual Funds:	
Equity	12,581,621
Pooled/Common/Commingled Funds:	
Real Estate	3,233,235
 Total Investments	 36,687,170
 Total Assets	 37,343,923
 <u>LIABILITIES</u>	
Payables:	
Benefit Payments	34
Investment Expenses	28,174
Administrative Expenses	4,306
 Total Liabilities	 32,514
 NET POSITION RESTRICTED FOR PENSIONS	 37,311,409

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2021  
Market Value Basis

ADDITIONS

## Contributions:

Member	182,933
City	555,076
State	355,479

Total Contributions	1,093,488
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## Investment Income:

Net Increase in Fair Value of Investments	5,491,925
Interest & Dividends	578,796
Less Investment Expense <sup>1</sup>	(146,467)

Net Investment Income	5,924,254
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Total Additions	7,017,742
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DEDUCTIONS

## Distributions to Members:

Benefit Payments	1,449,517
Lump Sum DROP Distributions	416,526
Lump Sum Share Distributions	19,340
Refunds of Member Contributions	2,346

Total Distributions	1,887,729
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Administrative Expense	92,221
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Total Deductions	1,979,950
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Net Increase in Net Position	5,037,792
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## NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year	32,273,617
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End of the Year	37,311,409
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<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

NOTES TO THE FINANCIAL STATEMENTS  
(For the Year Ended September 30, 2021)

*Plan Administration*

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of: Two Council appointees, two Members of the Plan elected by the membership, and a fifth Member elected by other 4 and appointed by Council as a ministerial duty.

*Plan Membership as of October 1, 2020:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	53
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	5
Active Plan Members	44
	102

*Benefits Provided*

The Plan provides retirement, termination, disability and death benefits.

A summary of the benefit provisions can be found in the October 1, 2020 Actuarial Valuation Report for the City of Dunedin Firefighters' Retirement System prepared by Foster & Foster Actuaries and Consultants.

*Contributions*

Member Contributions: 5.5% of Compensation.

Employer Contributions: Chapter 175 Premium Tax Refunds and any additional amount determined by the actuary needed to fund the plan properly according to State laws.

*Investment Policy:*

The following was the Board's adopted asset allocation policy as of September 30, 2021:

Asset Class	Target Allocation
Domestic Equity	52.5%
International Equity	12.5%
Domestic Fixed Income	25.0%
Real Estate	10.0%
Total	100.0%

*Concentrations:*

The Plan did not hold investments in any one organization that represent 5 percent or more of the Pension Plan's Fiduciary Net Position.

*Rate of Return:*

For the year ended September 30, 2021, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 18.72 percent.

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Deferred Retirement Option Program

Eligibility: A member may retire on the first day of the month coincident with or next following the earlier of: (1) age 52 and 25 years of Credited Service, or (2) age 55 and 10 years of Credited Service, or (3) 20 years of Credited Service regardless of age. Members who meet eligibility must submit a written election to participate in the DROP.

Benefit: The member's Credited Service and FAC are frozen upon entry into the DROP. The monthly retirement benefit as described under Normal Retirement is calculated based upon the frozen Credited Service and FAC.

In addition, a supplemental benefit of \$13 per year of Credited Service up to a maximum of \$325 is payable monthly to members who meet the requirements for Normal Retirement and retire. DROP participants do not receive the supplement until actual termination of employment.

Maximum DROP Period: The earlier of 5 years of participation in the DROP or when the member has completed 30 years of Credited Service.

Interest Credited: The member's average daily balance of the DROP account is debited or credited with interest on a quarterly basis at a rate equal to the Trust Fund's net investment return for the quarter.

The DROP balance as September 30, 2021 is \$586,669.

NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2021 were as follows:

Total Pension Liability	\$ 34,999,774
Plan Fiduciary Net Position	<u>\$ (37,311,409)</u>
Sponsor's Net Pension Liability	<u>\$ (2,311,635)</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	106.60%

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2020 updated to September 30, 2021 using the following actuarial assumptions:

Inflation	2.50%
Salary Increases	Service based
Discount Rate	7.25%
Investment Rate of Return	7.25%

*Mortality Rate Healthy Active Lives:*

Female: PubS.H-2010 (Below Median) for Employees, set forward one year.

Male: PubS.H-2010 (Below Median) for Employees, set forward one year.

*Mortality Rate Healthy Retiree Lives:*

Female: PubS.H-2010 for Healthy Retirees, set forward one year.

Male: PubS.H-2010 for Healthy Retirees, set forward one year.

*Mortality Rate Beneficiary Lives:*

Female: PubG.H-2010 for Healthy Retirees.

Male: PubG.H-2010 for Healthy Retirees, set back one year.

*Mortality Rate Disabled Lives:*

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

All rates are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.

The above described mortality assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman’s July 1, 2021 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

90% of active deaths are assumed to be service-incurred.

The most recent actuarial experience study used to review the other significant assumptions was dated August 16, 2021.

The Long-Term Expected Rate of Return on Pension Plan investments can be determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2021 the inflation rate assumption of the investment advisor was 2.50%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

## GASB 67

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2021 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return <sup>1</sup>
Domestic Equity	7.50%
International Equity	8.50%
Domestic Fixed Income	2.50%
Real Estate	4.50%

<sup>1</sup> Source: AndCo Consulting

### *Discount Rate:*

The Discount Rate used to measure the Total Pension Liability was 7.25 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

	1% Decrease 6.25%	Current Discount Rate 7.25%	1% Increase 8.25%
Sponsor's Net Pension Liability	\$ 1,597,963	\$ (2,311,635)	\$ (5,594,165)



SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS  
Last 2 Fiscal Years

	09/30/2021	09/30/2020
Total Pension Liability		
Service Cost	833,104	861,826
Interest	2,433,871	2,347,830
Share Plan Allocation	54,321	32,646
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	(148,847)	(217,129)
Changes of assumptions	1,152,682	(160,554)
Contributions - Buy Back	-	44,510
Benefit Payments, including Refunds of Employee Contributions	(1,887,729)	(1,578,674)
Net Change in Total Pension Liability	2,437,402	1,330,455
Total Pension Liability - Beginning	32,562,372	31,231,917
Total Pension Liability - Ending (a)	<u>\$ 34,999,774</u>	<u>\$ 32,562,372</u>
Plan Fiduciary Net Position		
Contributions - Employer	555,076	541,139
Contributions - State	355,479	326,578
Contributions - Employee	182,933	183,196
Contributions - Buy Back	-	44,510
Net Investment Income	5,924,254	3,070,432
Benefit Payments, including Refunds of Employee Contributions	(1,887,729)	(1,578,674)
Administrative Expense	(92,221)	(75,671)
Net Change in Plan Fiduciary Net Position	5,037,792	2,511,510
Plan Fiduciary Net Position - Beginning	32,273,617	29,762,107
Plan Fiduciary Net Position - Ending (b)	<u>\$ 37,311,409</u>	<u>\$ 32,273,617</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ (2,311,635)</u>	<u>\$ 288,755</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	106.60%	99.11%
Covered Payroll	\$ 3,326,112	\$ 3,330,834
Net Pension Liability as a percentage of Covered Payroll	-69.50%	8.67%

**Notes to Schedule of Changes in Net Pension Liability and Related Ratios:**

*Changes of assumptions:*

For measurement date 09/30/2021, amounts reported as changes of assumptions resulted from an experience study dated August 16, 2021. The following changes were made:

- 1) Investment return assumption was reduced from 7.50% to 7.25%, net of investment related expenses.
- 2) Reduced assumed salary increases for all periods of credited service less than 13 years of service.
- 3) Increased the assumed rates of termination for members in the first 5 years and 10-14 years of employment and decreased the assumed rates for service between 6 and 9 years and 15 or more years.

For measurement date 09/30/2020, as mandated by Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the rates used in Milliman's July 1, 2019 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

## SCHEDULE OF CONTRIBUTIONS

Last 2 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Total Contributions as a percentage of Covered Payroll
09/30/2021	\$ 856,234	\$ 856,234	\$ -	\$ 3,326,112	25.74%
09/30/2020	\$ 839,734	\$ 835,071	\$ 4,663	\$ 3,330,834	25.07%

Notes to Schedule:

Valuation Date: 10/01/2019

Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates can be found in the October 1, 2019 Actuarial Valuation for the City of Dunedin Firefighters' Retirement System by Foster & Foster Actuaries and Consultants.

SCHEDULE OF INVESTMENT RETURNS  
Last 2 Fiscal Years

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2021	18.72%
09/30/2020	10.50%

NOTES TO THE FINANCIAL STATEMENTS  
(For the Year Ended September 30, 2022)

*Plan Description*

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of: Two Council appointees, two Members of the Plan elected by the membership, and a fifth Member elected by other 4 and appointed by Council as a ministerial duty.

All actively employed full-time firefighters participate in the Plan as a condition of employment.

*Plan Membership as of October 1, 2020:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	53
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	5
Active Plan Members	44
	102
	102

*Benefits Provided*

The Plan provides retirement, termination, disability and death benefits.

A summary of the benefit provisions can be found in the October 1, 2020 Actuarial Valuation Report for the City of Dunedin Firefighters' Retirement System prepared by Foster & Foster Actuaries and Consultants.

*Contributions*

Member Contributions: 5.5% of Compensation.

Employer Contributions: Chapter 175 Premium Tax Refunds and any additional amount determined by the actuary needed to fund the plan properly according to State laws.

**Net Pension Liability**

The measurement date is September 30, 2021.

The measurement period for the pension expense was October 1, 2020 to September 30, 2021.

The reporting period is October 1, 2021 through September 30, 2022.

The Sponsor's Net Pension Liability was measured as of September 30, 2021.

The Total Pension Liability used to calculate the Net Pension Liability was determined as of that date.

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2020 updated to September 30, 2021 using the following actuarial assumptions:

Inflation	2.50%	
Salary Increases	Service based	
Discount Rate	7.25%	
Investment Rate of Return	7.25%	

*Mortality Rate Healthy Active Lives:*

Female: PubS.H-2010 (Below Median) for Employees, set forward one year.

Male: PubS.H-2010 (Below Median) for Employees, set forward one year.

*Mortality Rate Healthy Retiree Lives:*

Female: PubS.H-2010 for Healthy Retirees, set forward one year.

Male: PubS.H-2010 for Healthy Retirees, set forward one year.

*Mortality Rate Beneficiary Lives:*

Female: PubG.H-2010 for Healthy Retirees.

Male: PubG.H-2010 for Healthy Retirees, set back one year.

*Mortality Rate Disabled Lives:*

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

All rates are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.

The above described mortality assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman’s July 1, 2021 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

90% of active deaths are assumed to be service-incurred.

The most recent actuarial experience study used to review the other significant assumptions was dated August 16, 2021.

The Long-Term Expected Rate of Return on Pension Plan investments can be determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2021 the inflation rate assumption of the investment advisor was 2.50%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2021 are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return <sup>1</sup>
Domestic Equity	52.5%	7.50%
International Equity	12.5%	8.50%
Domestic Fixed Income	25.0%	2.50%
Real Estate	10.0%	4.50%
Total	100.0%	

<sup>1</sup> Source: AndCo Consulting

*Discount Rate:*

The Discount Rate used to measure the Total Pension Liability was 7.25 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

## CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a)-(b)
Reporting Period Ending September 30, 2021	\$ 32,562,372	\$ 32,273,617	\$ 288,755
Changes for a Year:			
Service Cost	833,104	-	833,104
Interest	2,433,871	-	2,433,871
Share Plan Allocation	54,321	-	54,321
Differences between Expected and Actual Experience	(148,847)	-	(148,847)
Changes of assumptions	1,152,682	-	1,152,682
Changes of benefit terms	-	-	-
Contributions - Employer	-	555,076	(555,076)
Contributions - State	-	355,479	(355,479)
Contributions - Employee	-	182,933	(182,933)
Contributions - Buy Back	-	-	-
Net Investment Income	-	5,924,254	(5,924,254)
Benefit Payments, including Refunds of Employee Contributions	(1,887,729)	(1,887,729)	-
Administrative Expense	-	(92,221)	92,221
Net Changes	2,437,402	5,037,792	(2,600,390)
Reporting Period Ending September 30, 2022	\$ 34,999,774	\$ 37,311,409	\$ (2,311,635)

*Sensitivity of the Net Pension Liability to changes in the Discount Rate.*

	Current Discount		
	1% Decrease 6.25%	Rate 7.25%	1% Increase 8.25%
Sponsor's Net Pension Liability	\$ 1,597,963	\$ (2,311,635)	\$ (5,594,165)

*Pension Plan Fiduciary Net Position.*

Detailed information about the pension Plan's Fiduciary Net Position is available in a separately issued Plan financial report.

FINAL PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED  
INFLOWS OF RESOURCES RELATED TO PENSIONS  
FISCAL YEAR SEPTEMBER 30, 2021

For the year ended September 30, 2021, the Sponsor has recognized a Pension Expense of \$663,608.

On September 30, 2021, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	11,438	293,899
Changes of assumptions	-	128,444
Net difference between Projected and Actual Earnings on Pension Plan investments	-	121,298
Employer and State Contributions subsequent to the measurement date	910,555	-
Total	\$ 921,993	\$ 543,641

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State Contributions subsequent to the measurement date has been recognized as a reduction of the Net Pension Liability in the year ended September 30, 2021.

Other amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:	
2022	\$ (164,716)
2023	\$ (146,339)
2024	\$ 26,236
2025	\$ (247,384)
2026	\$ -
Thereafter	\$ -

Payable to the Pension Plan:

On September 30, 2020, the Sponsor reported a payable of \$20,237 for the outstanding amount of contributions of the Pension Plan required for the year ended September 30, 2020.

**PRELIMINARY PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND  
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS  
FISCAL YEAR SEPTEMBER 30, 2022**

For the year ended September 30, 2022, the Sponsor will recognize a Pension Expense of \$222,152.

On September 30, 2022, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	5,719	310,130
Changes of assumptions	864,513	96,333
Net difference between Projected and Actual Earnings on Pension Plan investments	-	2,907,959
Employer and State Contributions subsequent to the measurement date	TBD	-
Total	TBD	\$ 3,314,422

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State Contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ended September 30, 2022.

Other amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:		
2023	\$	(602,775)
2024	\$	(430,200)
2025	\$	(703,820)
2026	\$	(707,395)
2027	\$	-
Thereafter	\$	-

**Payable to the Pension Plan:**

On September 30, 2021, the Sponsor reported a payable of \$9,603 for the outstanding amount of contributions of the Pension Plan required for the year ended September 30, 2021.



SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS  
Last 2 Fiscal Years

Reporting Period Ending	09/30/2022	09/30/2021
Measurement Date	09/30/2021	09/30/2020
Total Pension Liability		
Service Cost	833,104	861,826
Interest	2,433,871	2,347,830
Share Plan Allocation	54,321	32,646
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	(148,847)	(217,129)
Changes of assumptions	1,152,682	(160,554)
Contributions - Buy Back	-	44,510
Benefit Payments, including Refunds of Employee Contributions	(1,887,729)	(1,578,674)
Net Change in Total Pension Liability	2,437,402	1,330,455
Total Pension Liability - Beginning	32,562,372	31,231,917
Total Pension Liability - Ending (a)	<u>\$ 34,999,774</u>	<u>\$ 32,562,372</u>
Plan Fiduciary Net Position		
Contributions - Employer	555,076	541,139
Contributions - State	355,479	326,578
Contributions - Employee	182,933	183,196
Contributions - Buy Back	-	44,510
Net Investment Income	5,924,254	3,070,432
Benefit Payments, including Refunds of Employee Contributions	(1,887,729)	(1,578,674)
Administrative Expense	(92,221)	(75,671)
Net Change in Plan Fiduciary Net Position	5,037,792	2,511,510
Plan Fiduciary Net Position - Beginning	32,273,617	29,762,107
Plan Fiduciary Net Position - Ending (b)	<u>\$ 37,311,409</u>	<u>\$ 32,273,617</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ (2,311,635)</u>	<u>\$ 288,755</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	106.60%	99.11%
Covered Payroll	\$ 3,326,112	\$ 3,330,834
Net Pension Liability as a percentage of Covered Payroll	-69.50%	8.67%

**Notes to Schedule of Changes in Net Pension Liability and Related Ratios:**

*Changes of assumptions:*

For measurement date 09/30/2021, amounts reported as changes of assumptions resulted from an experience study dated August 16, 2021. The following changes were made:

- 1) Investment return assumption was reduced from 7.50% to 7.25%, net of investment related expenses.
- 2) Reduced assumed salary increases for all periods of credited service less than 13 years of service.
- 3) Increased the assumed rates of termination for members in the first 5 years and 10-14 years of employment and decreased the assumed rates for service between 6 and 9 years and 15 or more years.

For measurement date 09/30/2020, as mandated by Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the rates used in Milliman's July 1, 2019 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

SCHEDULE OF CONTRIBUTIONS  
Last 2 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Total Contributions as a percentage of Covered Payroll
09/30/2021	\$ 856,234	\$ 856,234	\$ -	\$ 3,326,112	25.74%
09/30/2020	\$ 839,734	\$ 835,071	\$ 4,663	\$ 3,330,834	25.07%

Notes to Schedule:

Valuation Date: 10/01/2019

Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates can be found in the October 1, 2019 Actuarial Valuation for the City of Dunedin Firefighters' Retirement System by Foster & Foster Actuaries and Consultants.

EXPENSE DEVELOPMENT AND AMORTIZATION SCHEDULES

**The following information is not required to be disclosed but is provided for informational purposes.**

FINAL COMPONENTS OF PENSION EXPENSE  
FISCAL YEAR SEPTEMBER 30, 2021

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 1,469,810	\$ 875,355	\$ 2,187,815	
Employer and State Contributions made after 09/30/2020	-	-	910,555	-
Total Pension Liability Factors:				
Service Cost	861,826	-	-	861,826
Interest	2,347,830	-	-	2,347,830
Share Plan Allocation	32,646	-	-	32,646
Changes in benefit terms	-	-	-	-
Contributions - Buy Back	44,510	-	-	44,510
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(217,129)	217,129	-	-
Current year amortization of experience difference	-	(262,691)	(5,719)	(256,972)
Change in assumptions about future economic or demographic factors or other inputs	(160,554)	160,554	-	-
Current year amortization of change in assumptions	-	(32,110)	(40,304)	8,194
Benefit Payments, including Refunds of Employee Contributions	(1,578,674)	-	-	-
Net change	<u>1,330,455</u>	<u>82,882</u>	<u>864,532</u>	<u>3,038,034</u>
Plan Fiduciary Net Position:				
Contributions - Employer	541,139	-	(541,139)	-
Contributions - State	326,578	-	(326,578)	-
Contributions - Employee	183,196	-	-	(183,196)
Contributions - Buy Back	44,510	-	-	(44,510)
Projected Net Investment Income	2,211,198	-	-	(2,211,198)
Difference between projected and actual earnings on Pension Plan investments	859,234	859,234	-	-
Current year amortization	-	(350,646)	(339,453)	(11,193)
Benefit Payments, including Refunds of Employee Contributions	(1,578,674)	-	-	-
Administrative Expenses	(75,671)	-	-	75,671
Net change	<u>2,511,510</u>	<u>508,588</u>	<u>(1,207,170)</u>	<u>(2,374,426)</u>
Ending Balance	<u>\$ 288,755</u>	<u>\$ 1,466,825</u>	<u>\$ 1,845,177</u>	<u>\$ 663,608</u>

PRELIMINARY COMPONENTS OF PENSION EXPENSE  
FISCAL YEAR SEPTEMBER 30, 2022

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 288,755	\$ 1,466,825	\$ 1,845,177	
Employer and State Contributions made after 09/30/2021	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	833,104	-	-	833,104
Interest	2,433,871	-	-	2,433,871
Share Plan Allocation	54,321	-	-	54,321
Changes in benefit terms	-	-	-	-
Contributions - Buy Back	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(148,847)	148,847	-	-
Current year amortization of experience difference	-	(132,616)	(5,719)	(126,897)
Change in assumptions about future economic or demographic factors or other inputs	1,152,682	-	1,152,682	-
Current year amortization of change in assumptions	-	(32,111)	(288,169)	256,058
Benefit Payments, including Refunds of Employee Contributions	(1,887,729)	-	-	-
Net change	<u>2,437,402</u>	<u>(15,880)</u>	<u>858,794</u>	<u>3,450,457</u>
Plan Fiduciary Net Position:				
Contributions - Employer	555,076	-	(555,076)	-
Contributions - State	355,479	-	(355,479)	-
Contributions - Employee	182,933	-	-	(182,933)
Contributions - Buy Back	-	-	-	-
Projected Net Investment Income	2,387,279	-	-	(2,387,279)
Difference between projected and actual earnings on Pension Plan investments	3,536,975	3,536,975	-	-
Current year amortization	-	(1,058,042)	(307,728)	(750,314)
Benefit Payments, including Refunds of Employee Contributions	(1,887,729)	-	-	-
Administrative Expenses	(92,221)	-	-	92,221
Net change	<u>5,037,792</u>	<u>2,478,933</u>	<u>(1,218,283)</u>	<u>(3,228,305)</u>
Ending Balance	<u>\$ (2,311,635)</u>	<u>\$ 3,929,878</u>	<u>TBD</u>	<u>\$ 222,152</u>

\* Employer and State Contributions subsequent to the measurement date made after September 30, 2021 but made on or before September 30, 2022 need to be added.

AMORTIZATION SCHEDULE - INVESTMENTS

Increase (Decrease) in Pension Expense Arising from the Recognition of the of Differences Between Projected and Actual Earnings on Pension Plan Investments

Plan Year Ending	Differences Between Projected and Actual Earnings	Recognition Period (Years)	2021	2022	2023	2024	2025	2026	2027	2028	2029
2021	\$ (3,536,975)	5	\$ -	\$ (707,395)	\$ (707,395)	\$ (707,395)	\$ (707,395)	\$ (707,395)	\$ -	\$ -	\$ -
2020	\$ (859,234)	5	\$ (171,846)	\$ (171,847)	\$ (171,847)	\$ (171,847)	\$ (171,847)	\$ -	\$ -	\$ -	\$ -
2019	\$ 1,538,639	5	\$ 307,728	\$ 307,728	\$ 307,728	\$ 307,728	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (891,470)	5	\$ (178,294)	\$ (178,294)	\$ (178,294)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (2,529)	5	\$ (506)	\$ (506)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 158,624	5	\$ 31,725	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (11,193)	\$ (750,314)	\$ (749,808)	\$ (571,514)	\$ (879,242)	\$ (707,395)	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - CHANGES OF ASSUMPTIONS

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes of Assumptions

Plan Year Ending	Changes of Assumptions	Recognition Period (Years)	2021	2022	2023	2024	2025	2026	2027	2028	2029
2021	\$ 1,152,682	4	\$ -	\$ 288,169	\$ 288,171	\$ 288,171	\$ 288,171	\$ -	\$ -	\$ -	\$ -
2020	\$ (160,554)	5	\$ (32,110)	\$ (32,111)	\$ (32,111)	\$ (32,111)	\$ (32,111)	\$ -	\$ -	\$ -	\$ -
2016	\$ 201,521	5	\$ 40,304	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 8,194	\$ 256,058	\$ 256,060	\$ 256,060	\$ 256,060	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - EXPERIENCE

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience

Plan Year Ending	Differences Between Expected and Actual Experience	Recognition Period (Years)	2021	2022	2023	2024	2025	2026	2027	2028	2029
2021	\$ (148,847)	4	\$ -	\$ (37,211)	\$ (37,212)	\$ (37,212)	\$ (37,212)	\$ -	\$ -	\$ -	\$ -
2020	\$ (217,129)	5	\$ (43,425)	\$ (43,426)	\$ (43,426)	\$ (43,426)	\$ (43,426)	\$ -	\$ -	\$ -	\$ -
2019	\$ (170,541)	5	\$ (34,108)	\$ (34,108)	\$ (34,108)	\$ (34,108)	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ 28,595	5	\$ 5,719	\$ 5,719	\$ 5,719	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (89,355)	5	\$ (17,871)	\$ (17,871)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (836,436)	5	\$ (167,287)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (256,972)	\$ (126,897)	\$ (109,027)	\$ (114,746)	\$ (80,638)	\$ -	\$ -	\$ -	\$ -